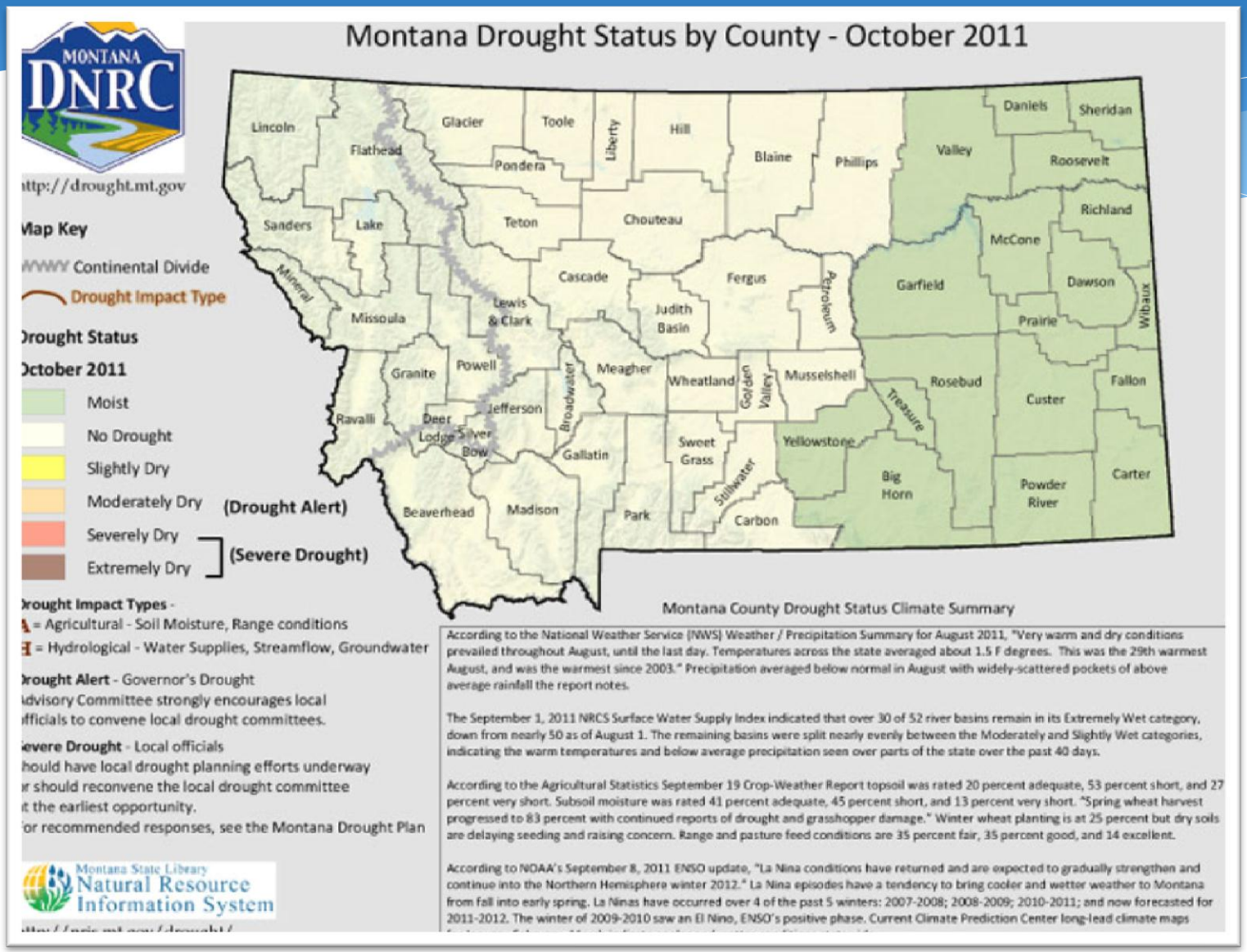
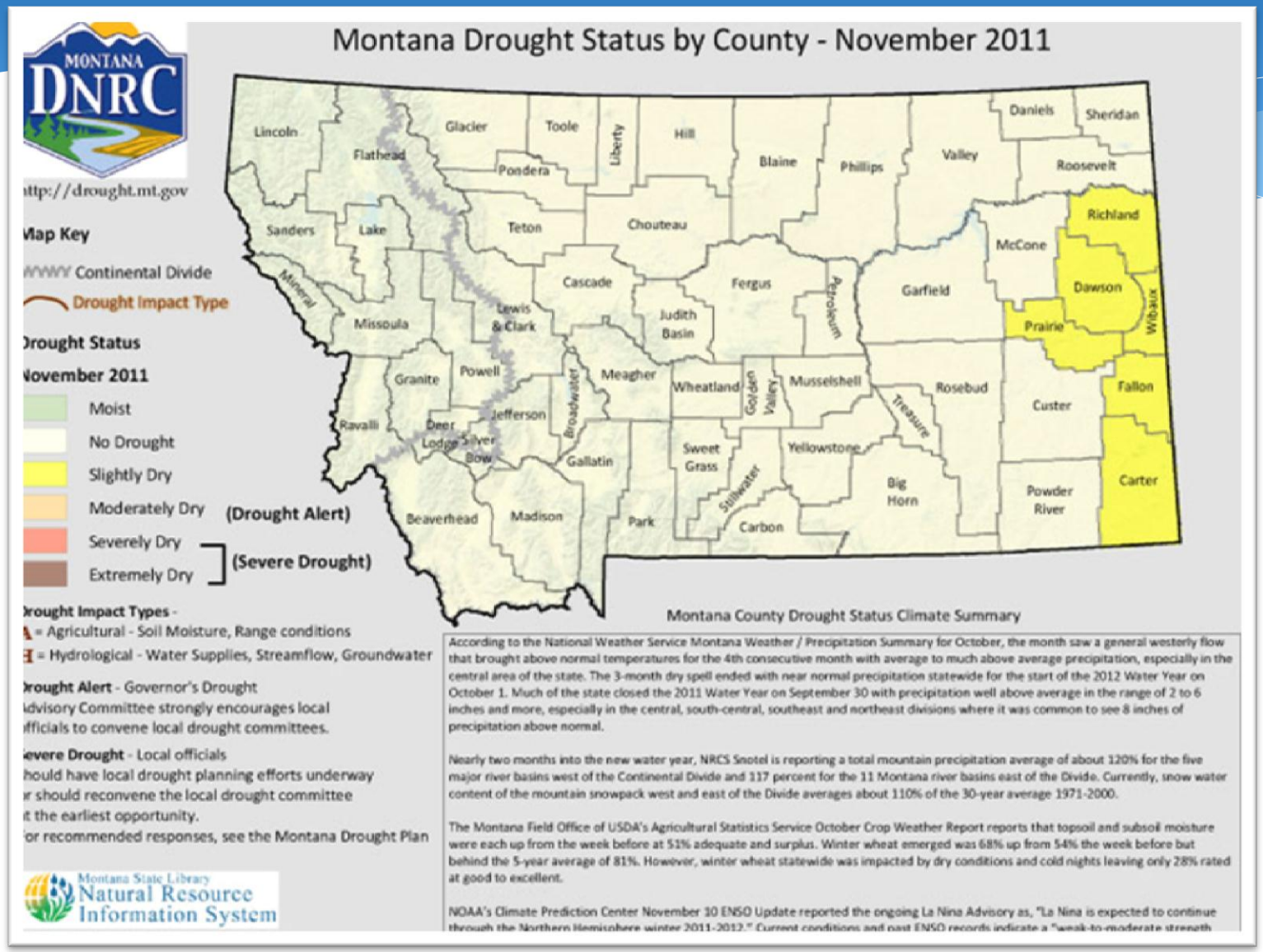
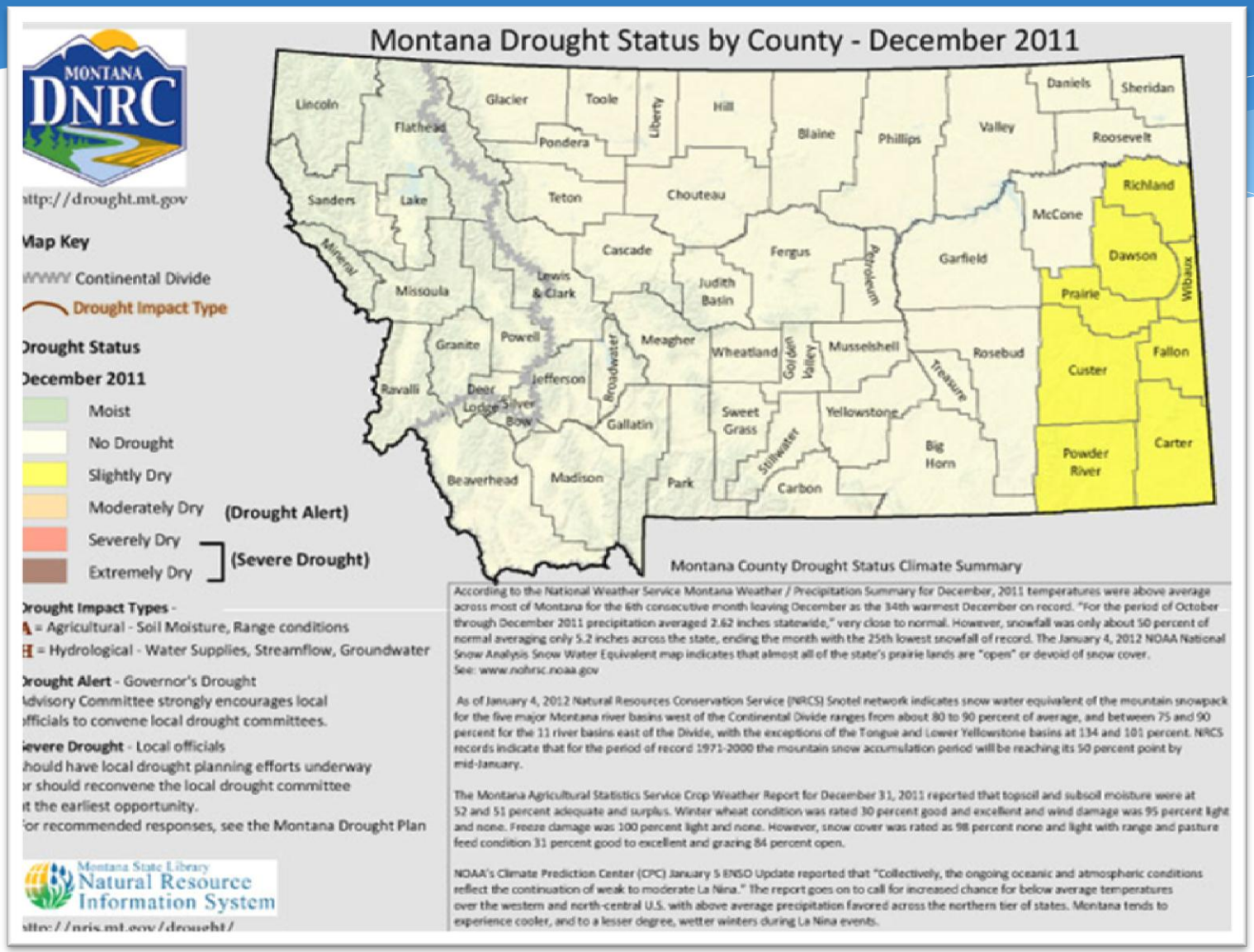
Montana Drought Status
October 2011



Montana Drought Status
November 2011



Montana Drought Status
December 2011



Montana County Drought Status Climate Summary

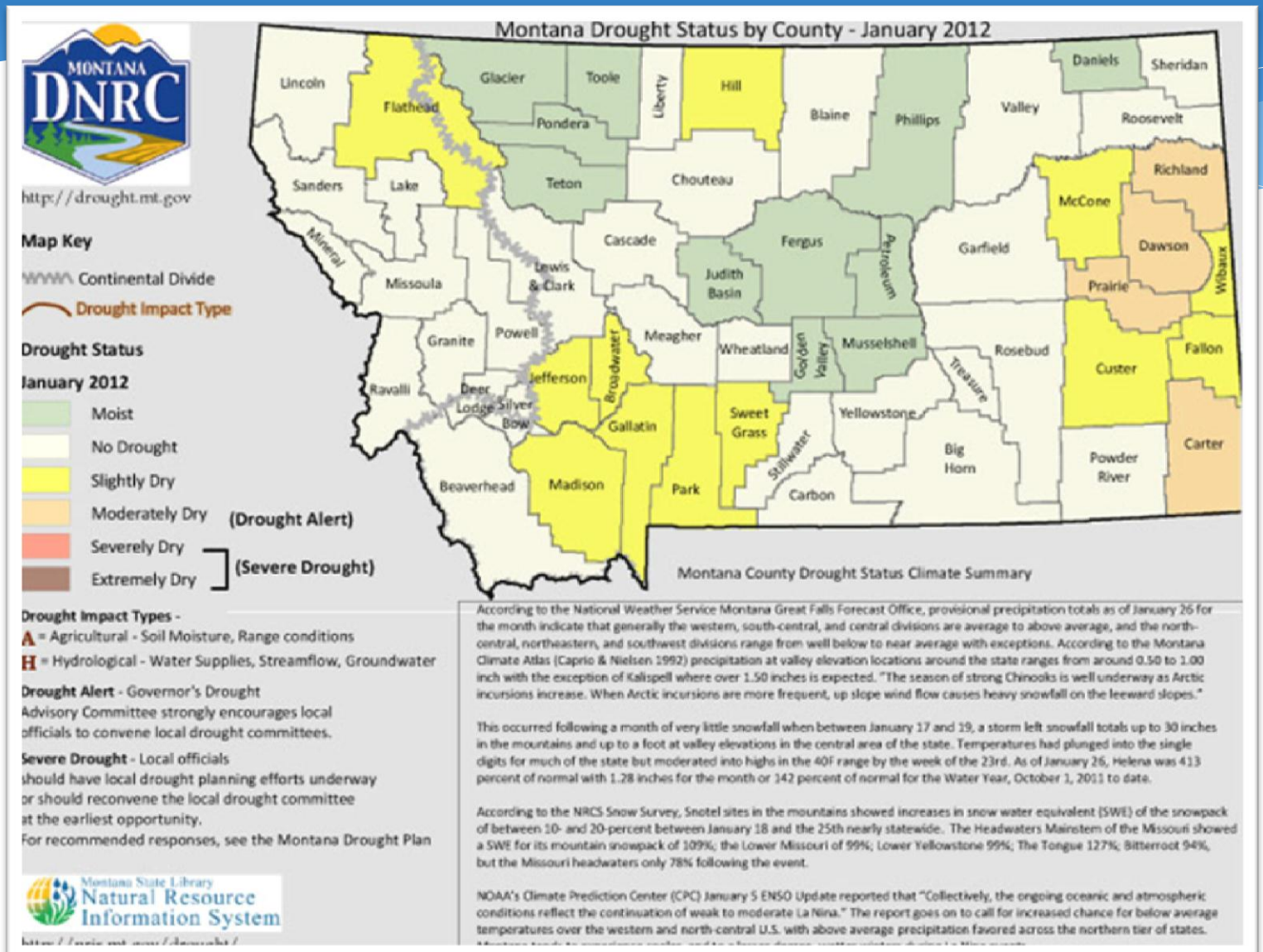
According to the National Weather Service Montana Weather / Precipitation Summary for December, 2011 temperatures were above average across most of Montana for the 6th consecutive month leaving December as the 34th warmest December on record. "For the period of October through December 2011 precipitation averaged 2.62 inches statewide," very close to normal. However, snowfall was only about 50 percent of normal averaging only 5.2 inches across the state, ending the month with the 25th lowest snowfall of record. The January 4, 2012 NOAA National Snow Analysis Snow Water Equivalent map indicates that almost all of the state's prairie lands are "open" or devoid of snow cover. See: www.nohrsc.noaa.gov

As of January 4, 2012 Natural Resources Conservation Service (NRCS) Snotel network indicates snow water equivalent of the mountain snowpack for the five major Montana river basins west of the Continental Divide ranges from about 80 to 90 percent of average, and between 75 and 90 percent for the 11 river basins east of the Divide, with the exceptions of the Tongue and Lower Yellowstone basins at 134 and 101 percent. NRCS records indicate that for the period of record 1971-2000 the mountain snow accumulation period will be reaching its 50 percent point by mid-January.

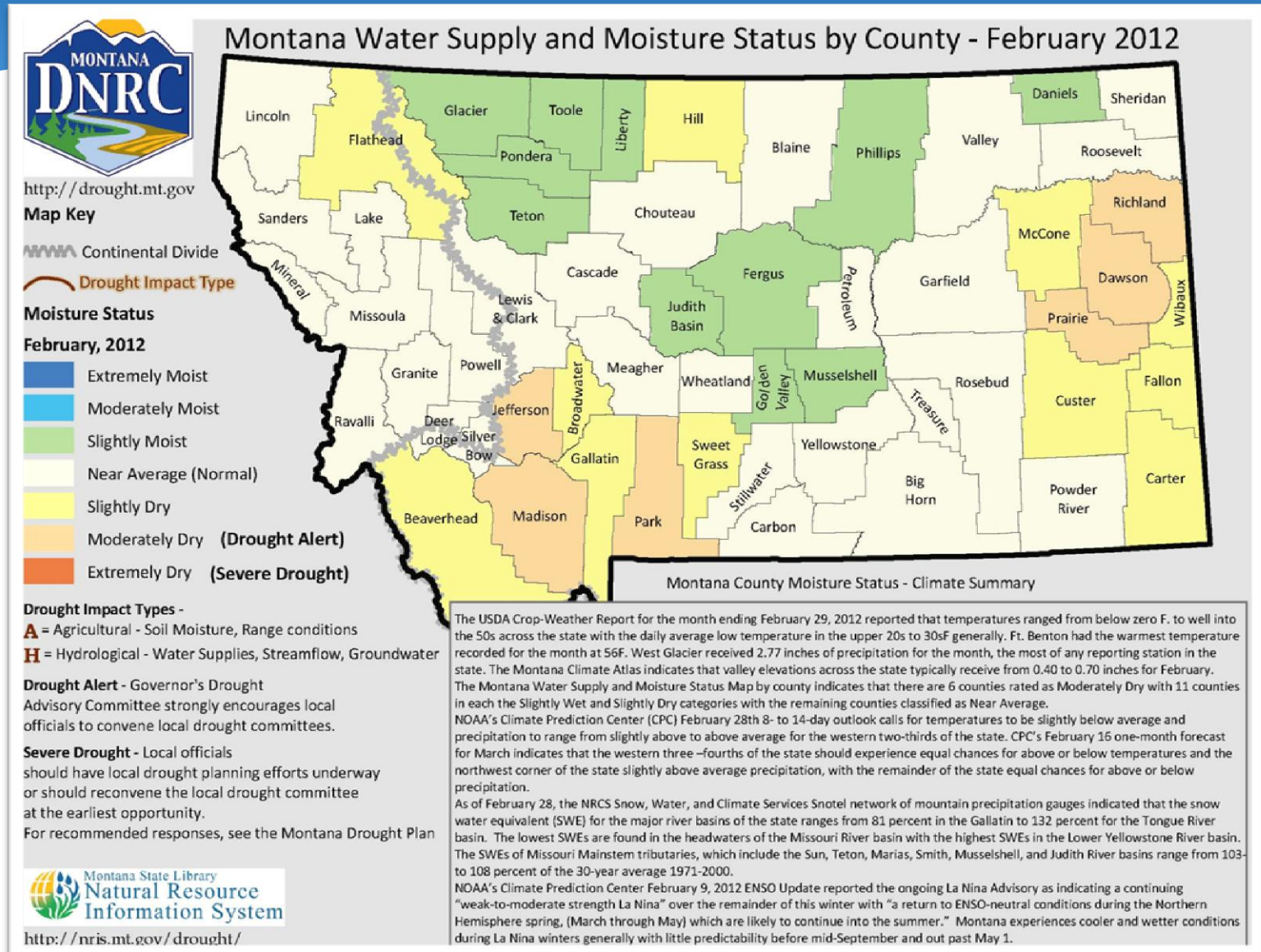
The Montana Agricultural Statistics Service Crop Weather Report for December 31, 2011 reported that topsoil and subsoil moisture were at 52 and 51 percent adequate and surplus. Winter wheat condition was rated 30 percent good and excellent and wind damage was 95 percent light and none. Freeze damage was 100 percent light and none. However, snow cover was rated as 98 percent none and light with range and pasture feed condition 31 percent good to excellent and grazing 84 percent open.

NOAA's Climate Prediction Center (CPC) January 5 ENSO Update reported that "Collectively, the ongoing oceanic and atmospheric conditions reflect the continuation of weak to moderate La Nina." The report goes on to call for increased chance for below average temperatures over the western and north-central U.S. with above average precipitation favored across the northern tier of states. Montana tends to experience cooler, and to a lesser degree, wetter winters during La Nina events.

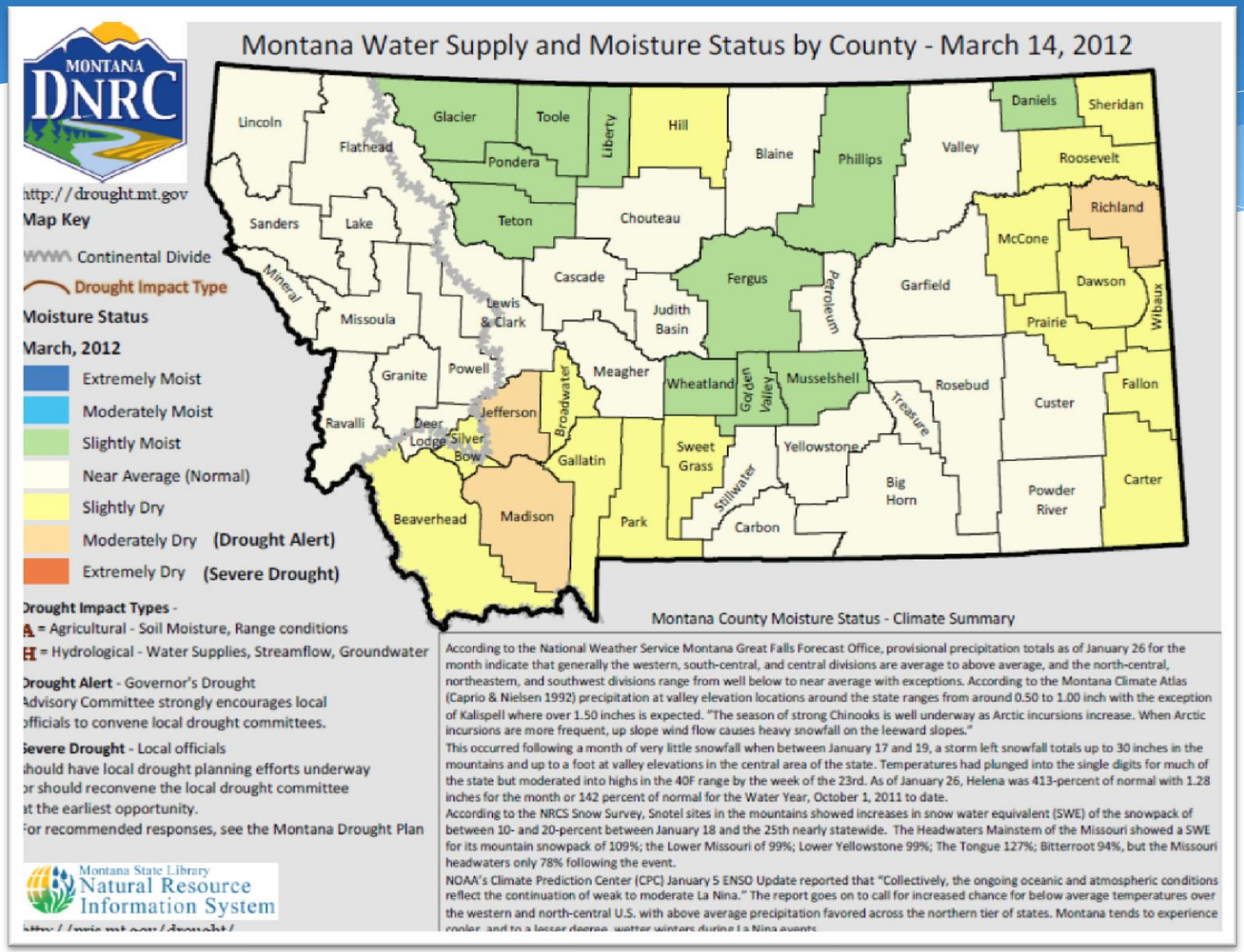
Montana Drought Status
January 2012



Montana Drought Status
February 2012



Montana Drought Status
March 2012



Governor's Drought Advisory Committee

March 15, 2012

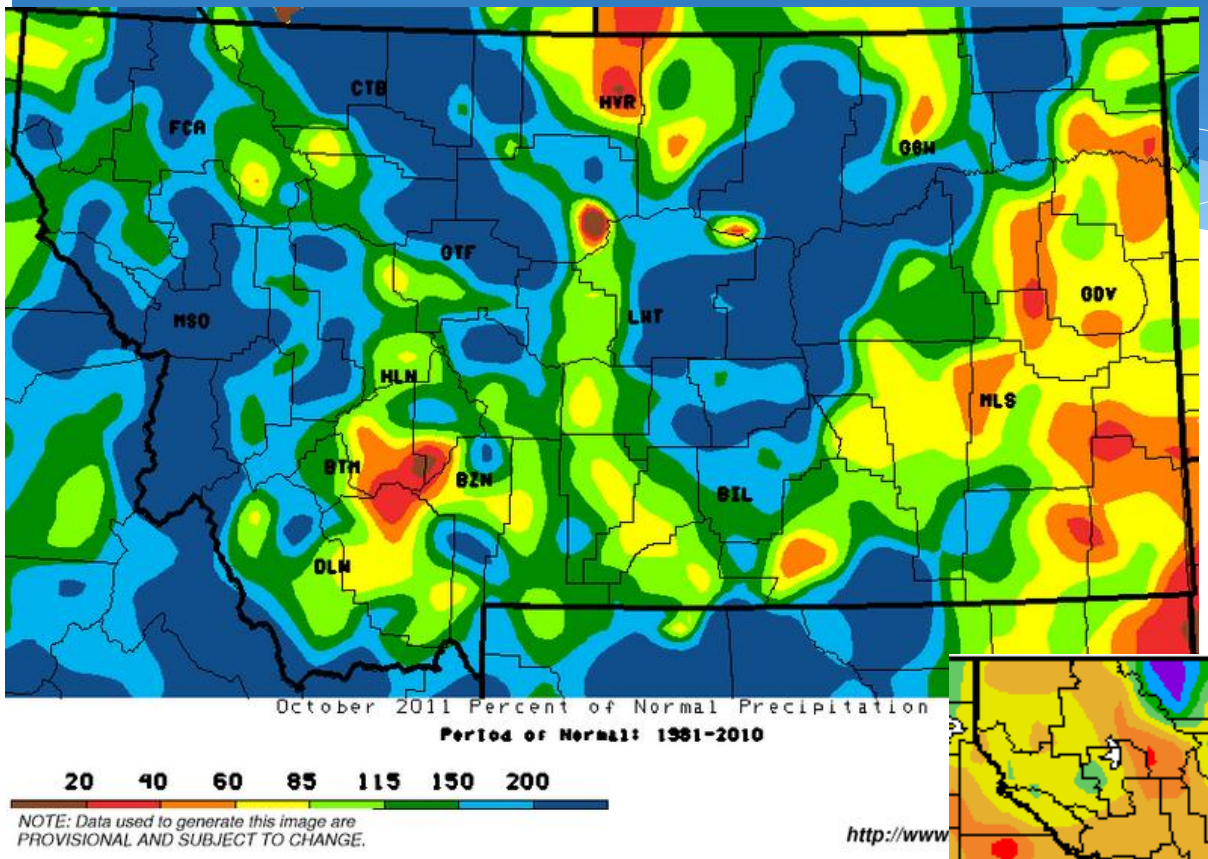
National Weather Service

Gina Loss

Fire northeast of Great Falls
March 13, 2012

Fire between Havre and Chinook
March 13, 2012

Percent of Normal Precipitation
October 2011



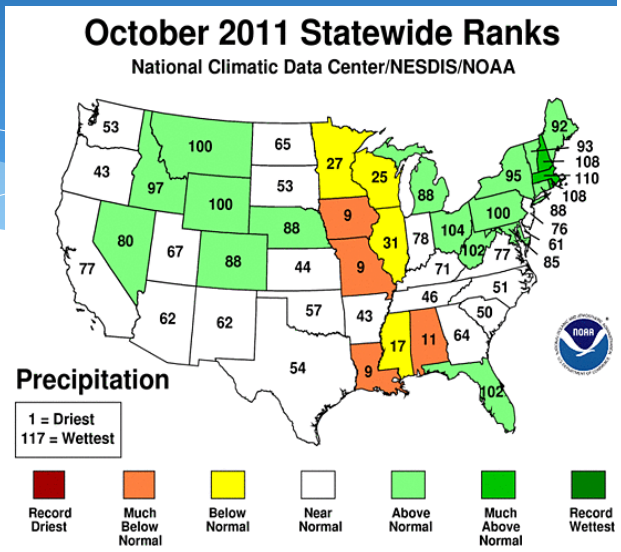
October 2011 Percent of Normal Precipitation

Period of Normal: 1981-2010

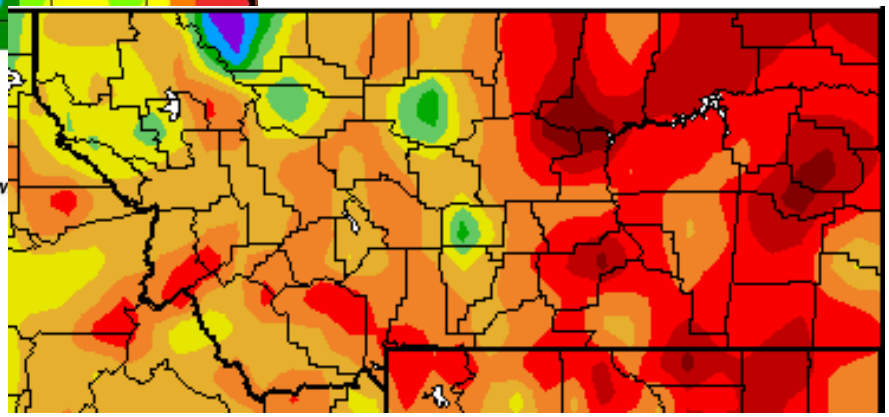
20 40 60 85 115 150 200

NOTE: Data used to generate this image are PROVISIONAL AND SUBJECT TO CHANGE.

http://www



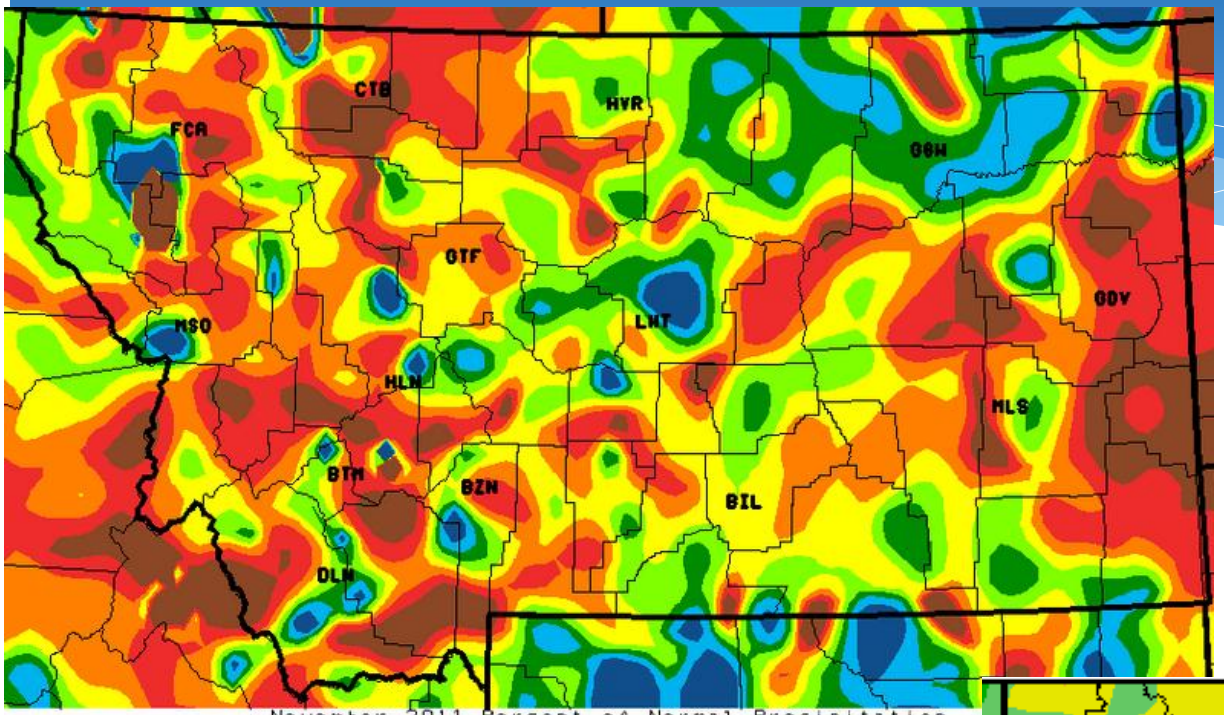
19th wettest, 100th driest



Departure from average temperature

−5 −4 −3 −2 −1 0 1 2 3 4 5

Percent of Normal Precipitation
November 2011



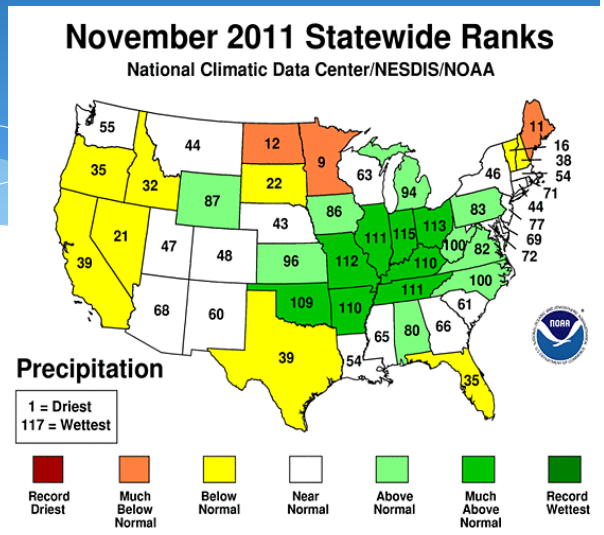
November 2011 Percent of Normal Precipitation

Period of Normals: 1981-2010

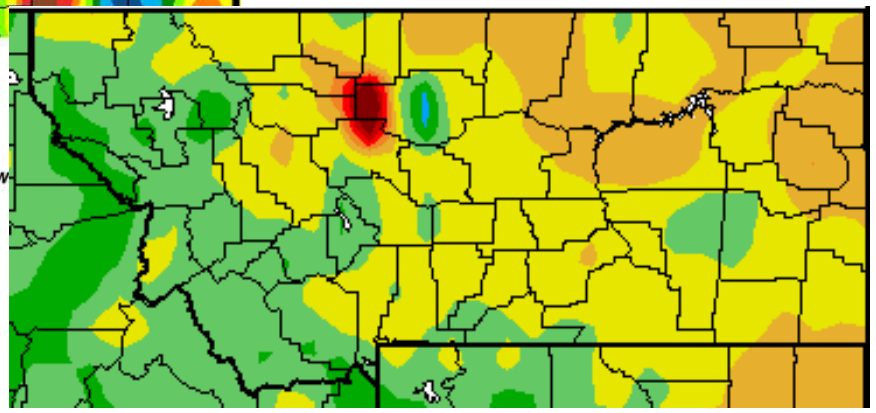
20 40 60 85 115 150 200

NOTE: Data used to generate this image are PROVISIONAL AND SUBJECT TO CHANGE.

http://www.w

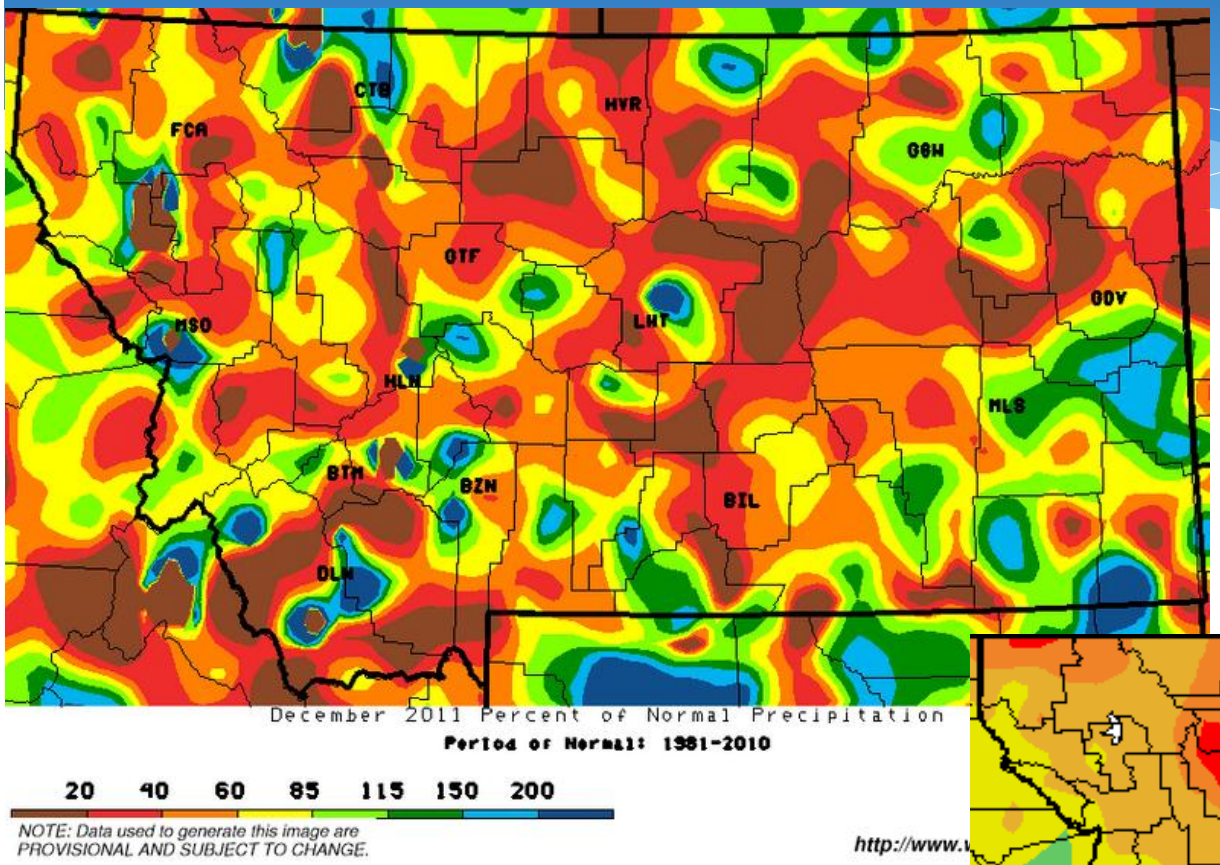


44th driest, 75th wettest



Departure from average temperature

Percent of Normal Precipitation
December 2011



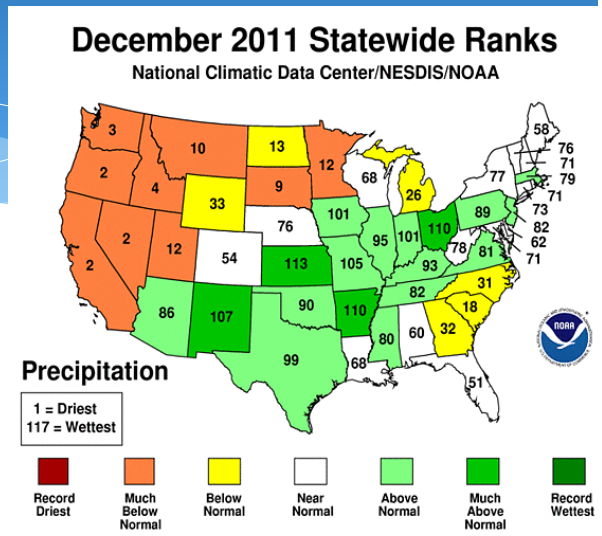
December 2011 Percent of Normal Precipitation

Period of Normal: 1981-2010

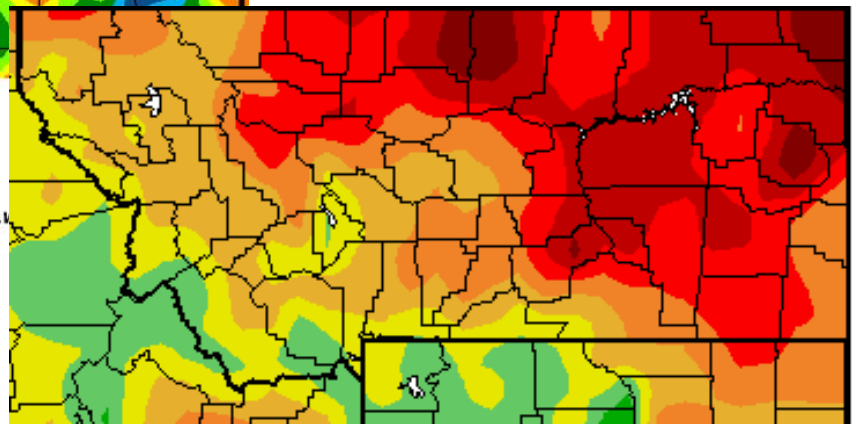
20 40 60 85 115 150 200

NOTE: Data used to generate this image are PROVISIONAL AND SUBJECT TO CHANGE.

http://www.



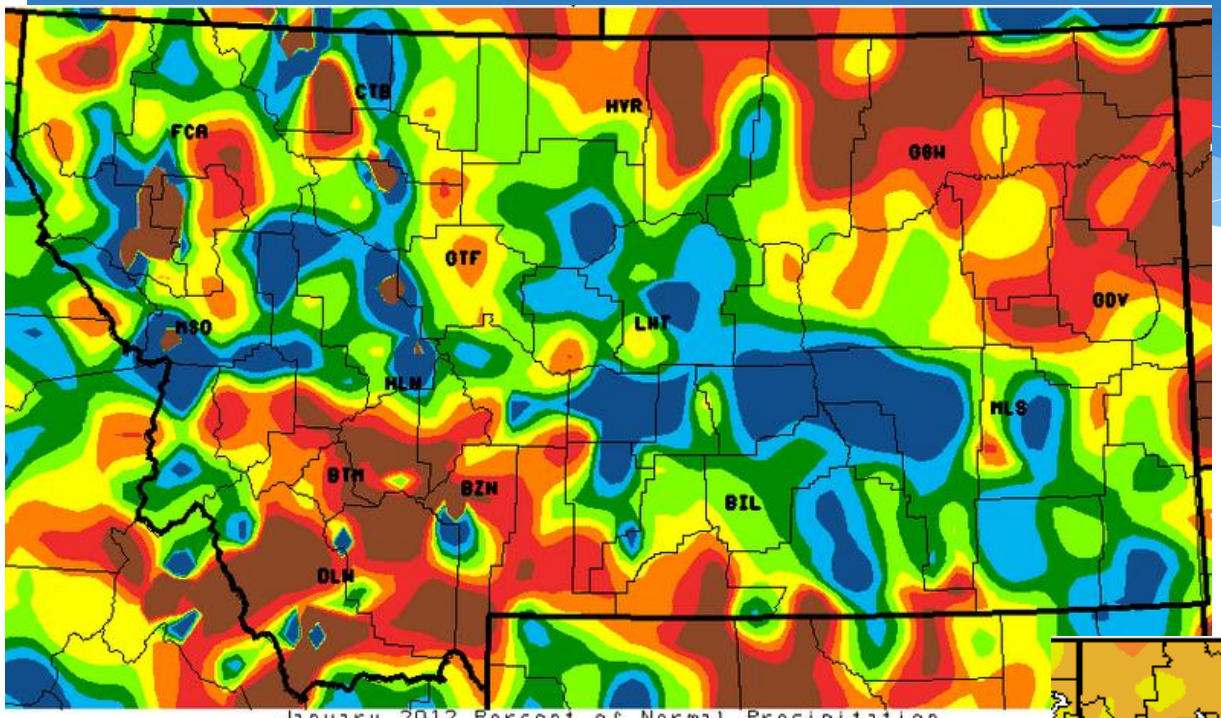
10th driest, 109th wettest



Departure from average temperature

−10 −8 −6 −4 −2 0 2 4 6 8 10

Percent of Normal Precipitation
January 2012



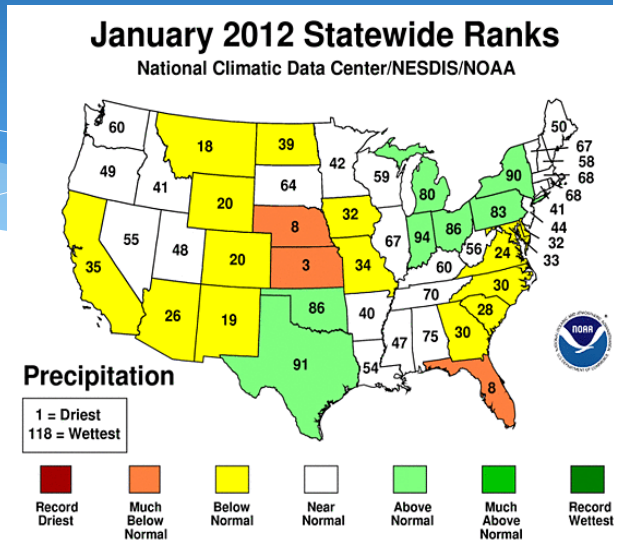
January 2012 Percent of Normal Precipitation

Period of Normal: 1981-2010

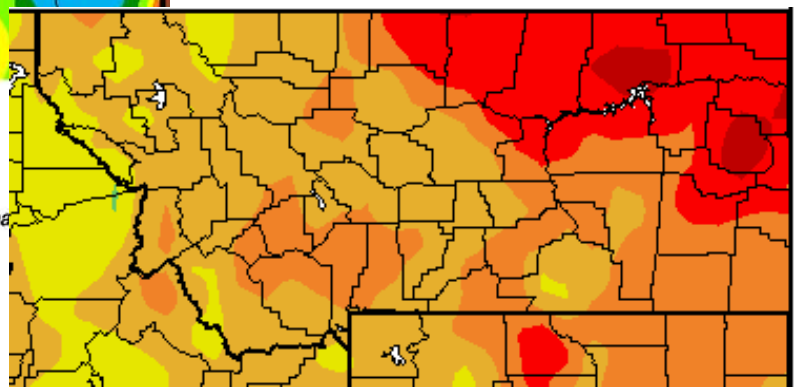
20 40 60 85 115 150 200

NOTE: Data used to generate this image are PROVISIONAL AND SUBJECT TO CHANGE.

http://www.wrh.noaa

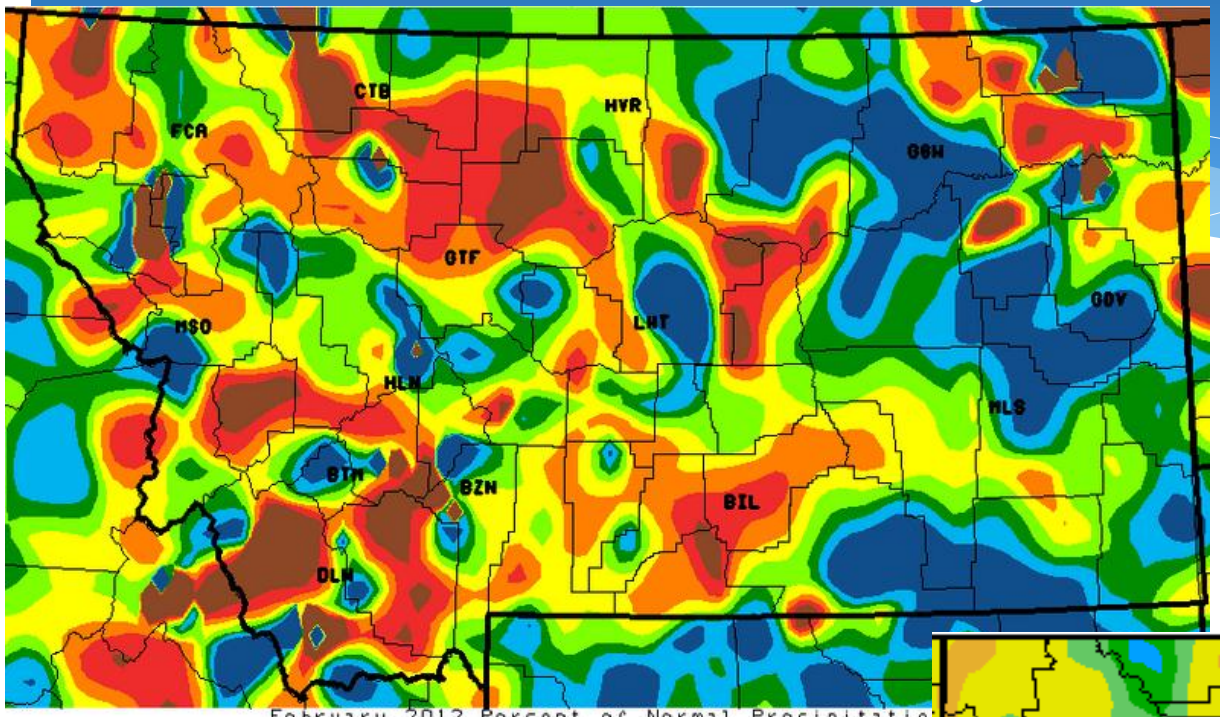


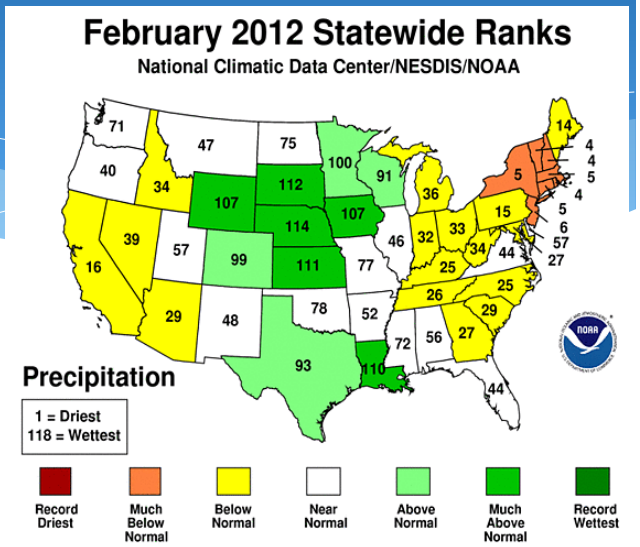
18th driest, 101st wettest



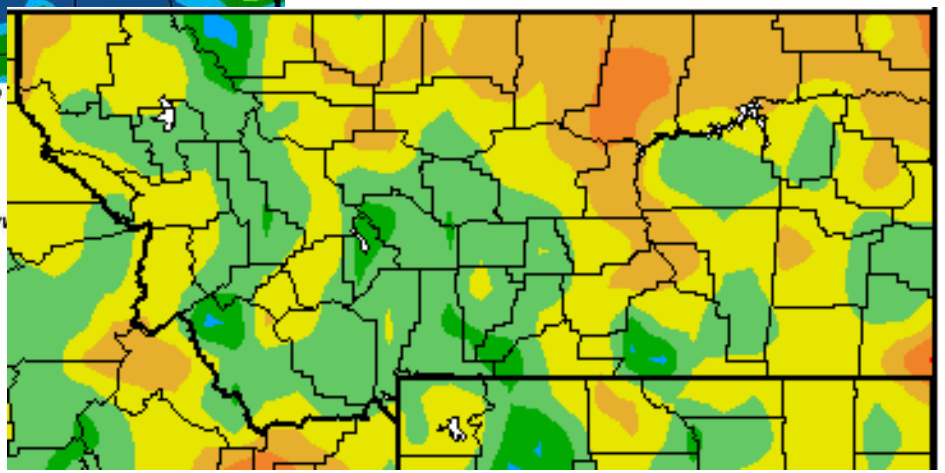
Departure from average temperature

Percent of Normal Precipitation
February 2012



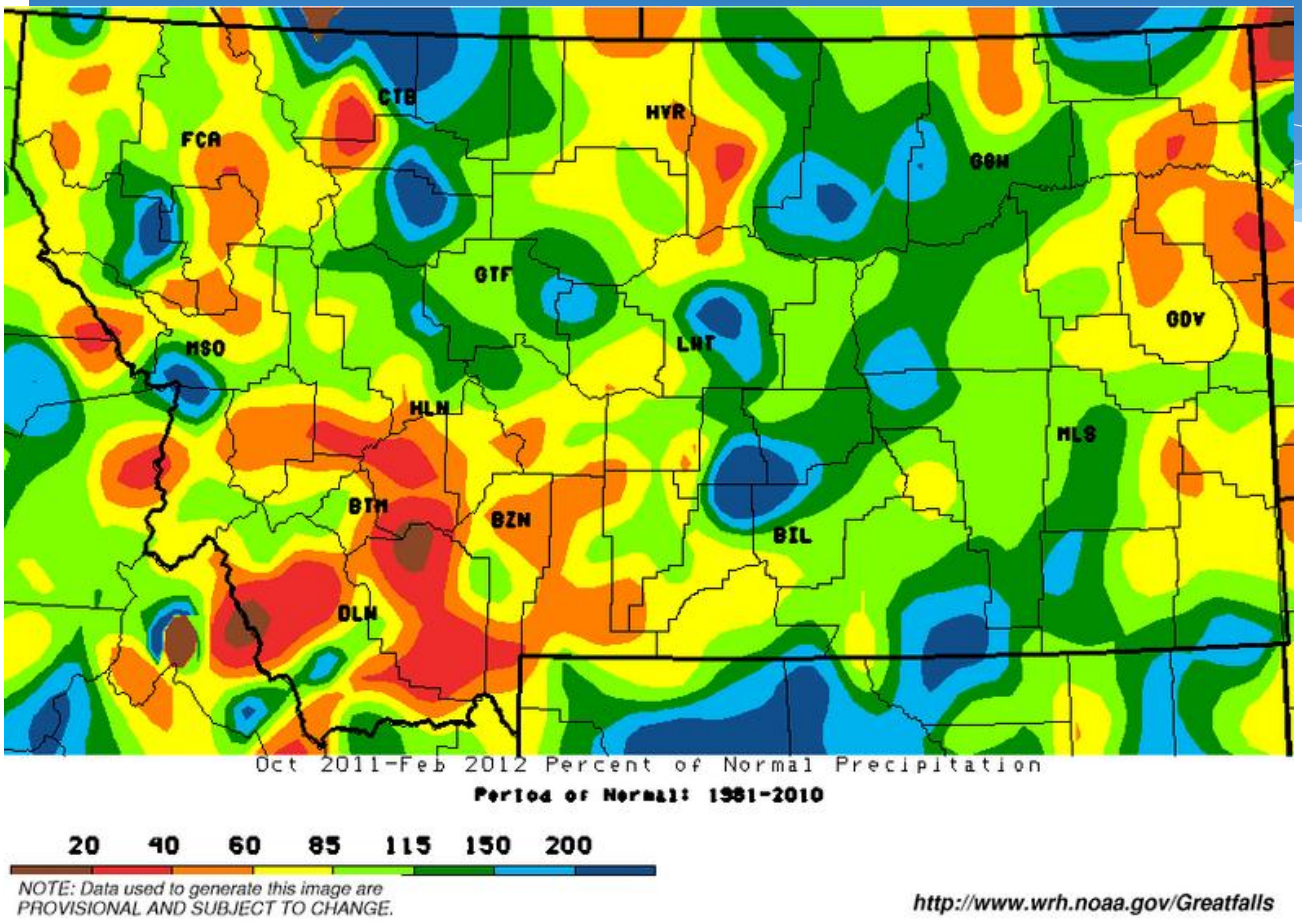


47th driest, 71st wettest,



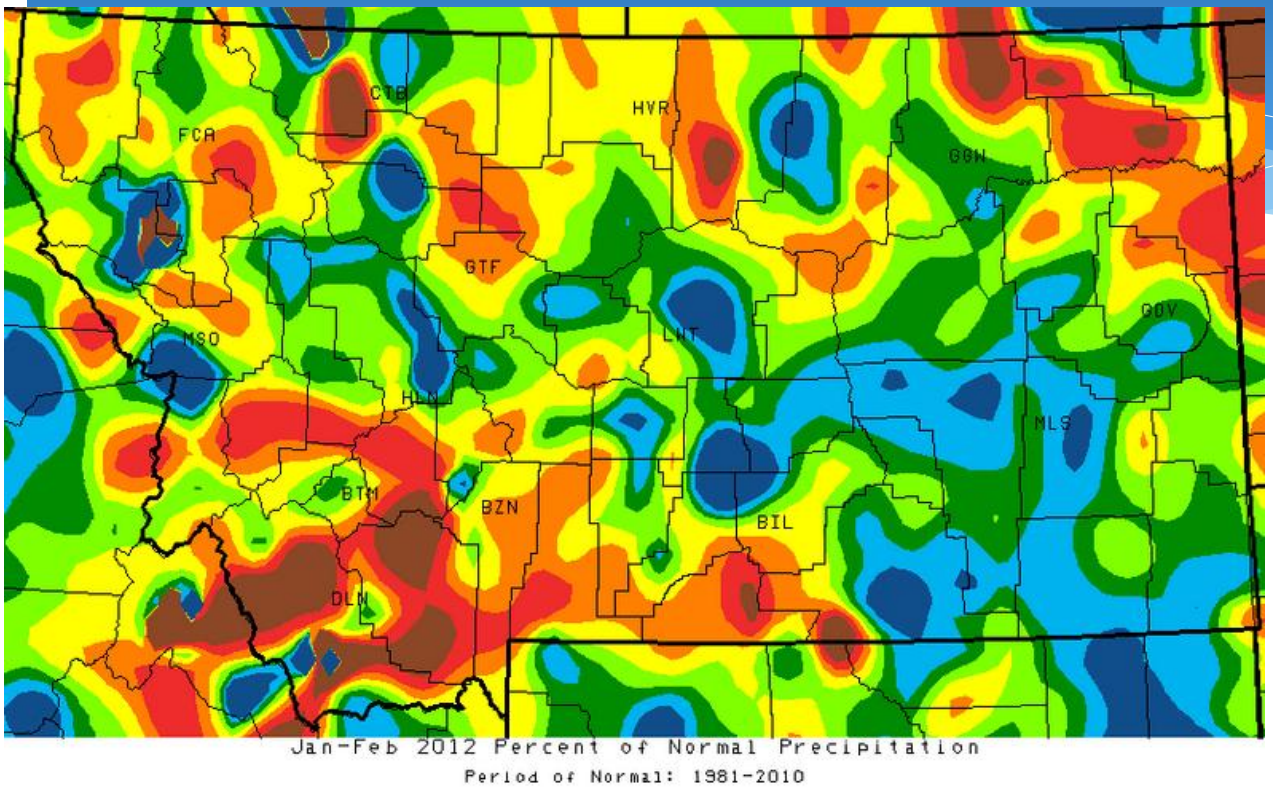
Departure from average temperature

Percent of Normal Precipitation
Water Year 2012



* October – February
* Most of Montana averaging near to above normal
* Southwest and east averaging near to below normal

Percent of Normal Precipitation
Calendar Year 2012



Jan-Feb 2012 Percent of Normal Precipitation
Period of Normal: 1981-2010

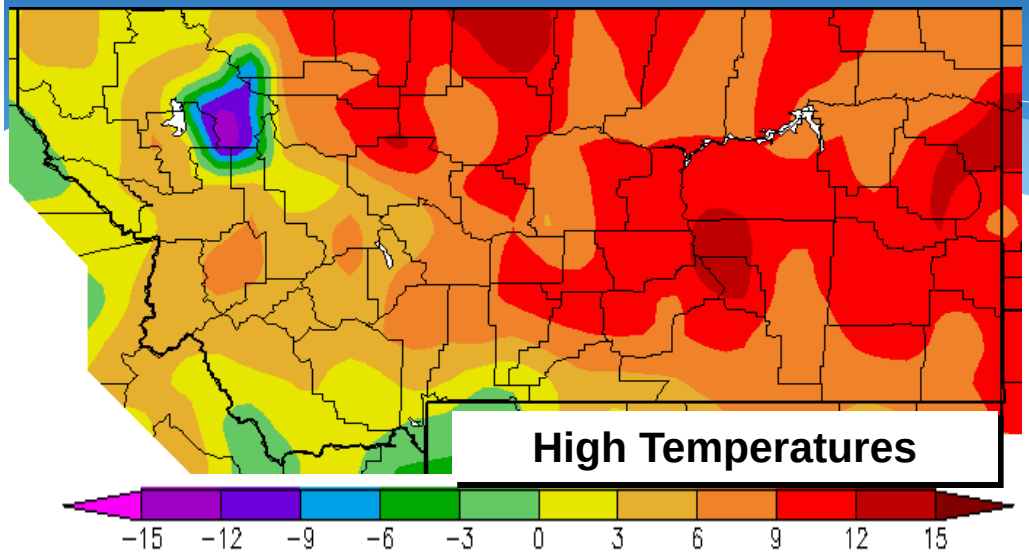
20 40 60 85 115 150 200

NOTE: Data used to generate this image are PROVISIONAL AND SUBJECT TO CHANGE.

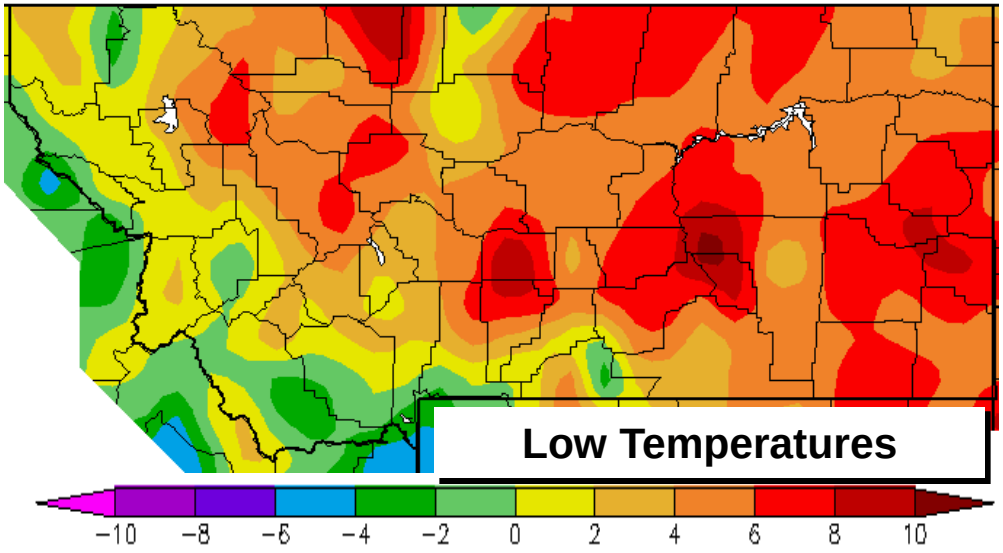
http://www.wrh.noaa.gov/Greatfalls

* January – February
* Below to well below normal southwest and northeast
* Above to well above normal central and southeast

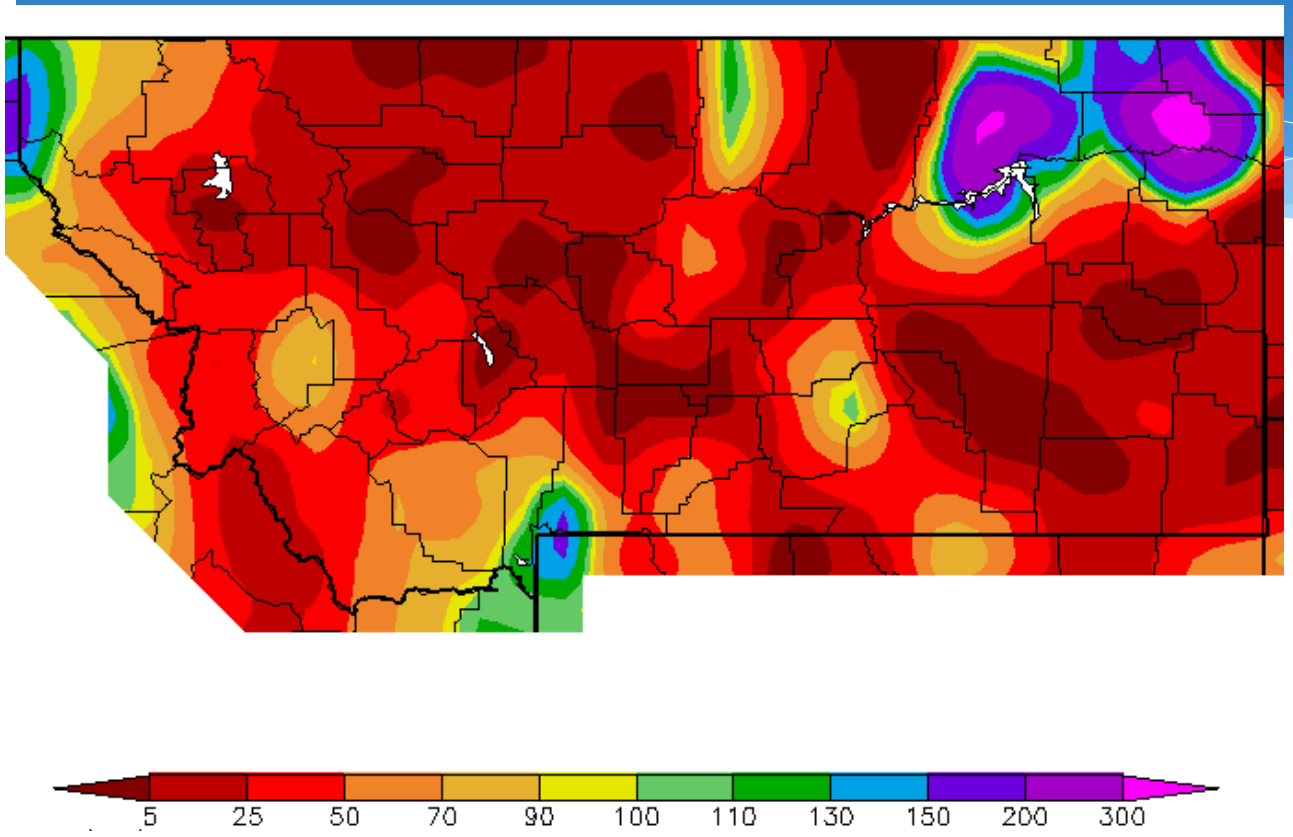
Temperature Anomalies
March 1 – 12, 2012



* Temperatures averaging near to above normal
* Highs
  * West/southwest – 0-6 degrees above normal
  * Central/east – 6-15 degrees above normal
* Lows
  * West/southwest – near normal
  * Central/east – 2-10 degrees above normal



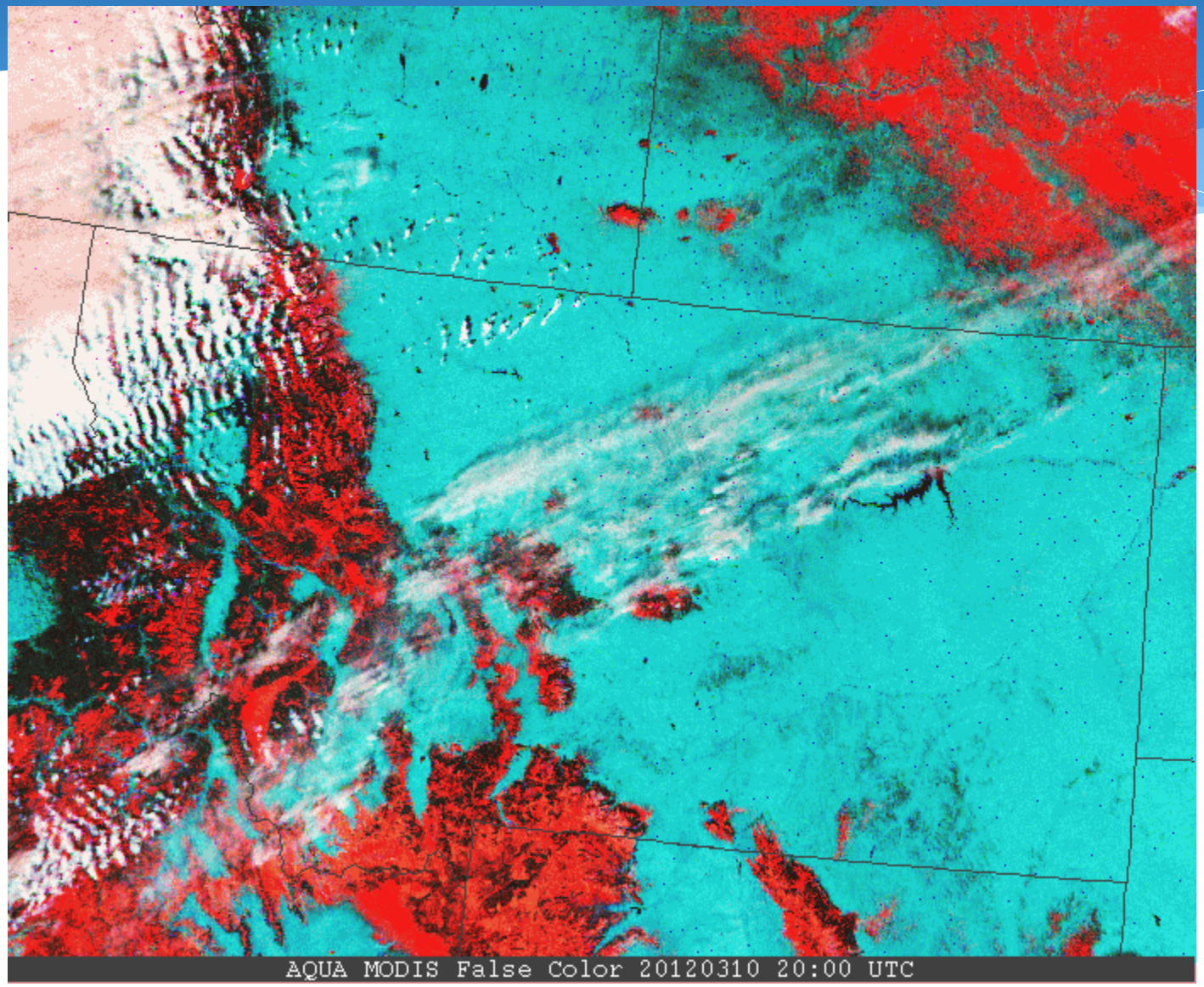
Percent of Average Precipitation
March 1 – 12



* Well below normal over much of Montana
* Near to well above normal in the northeast corner of Montana

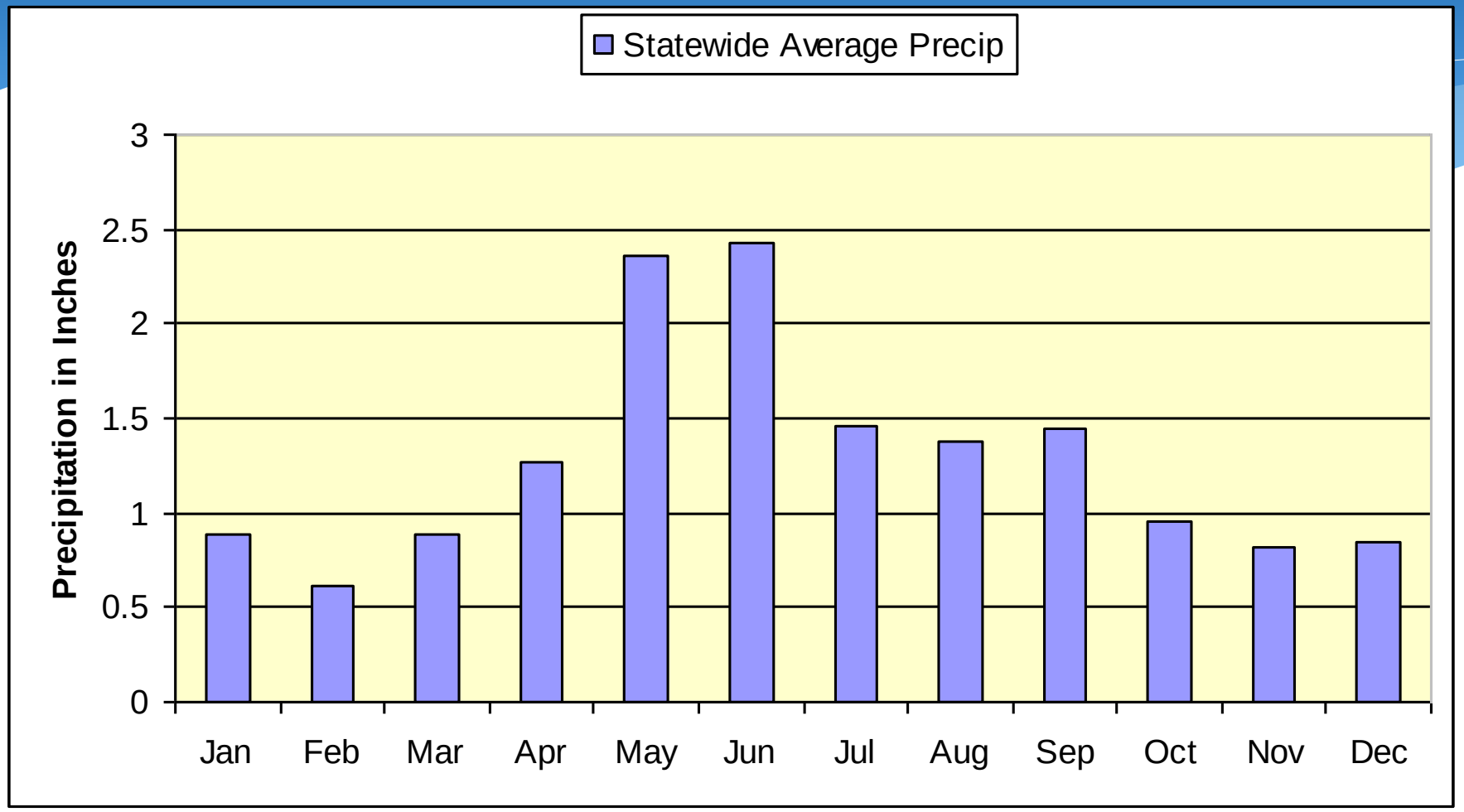
MODIS Satellite Imagery

March 10, 2012

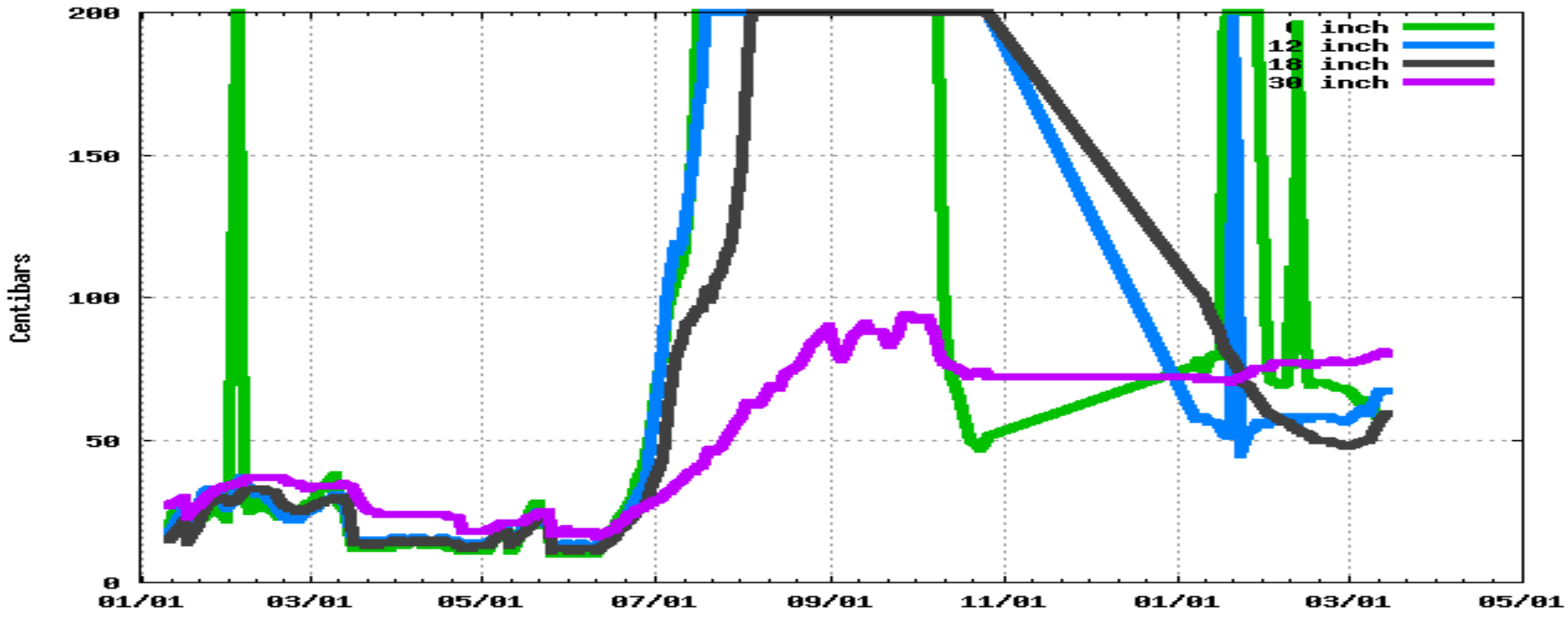


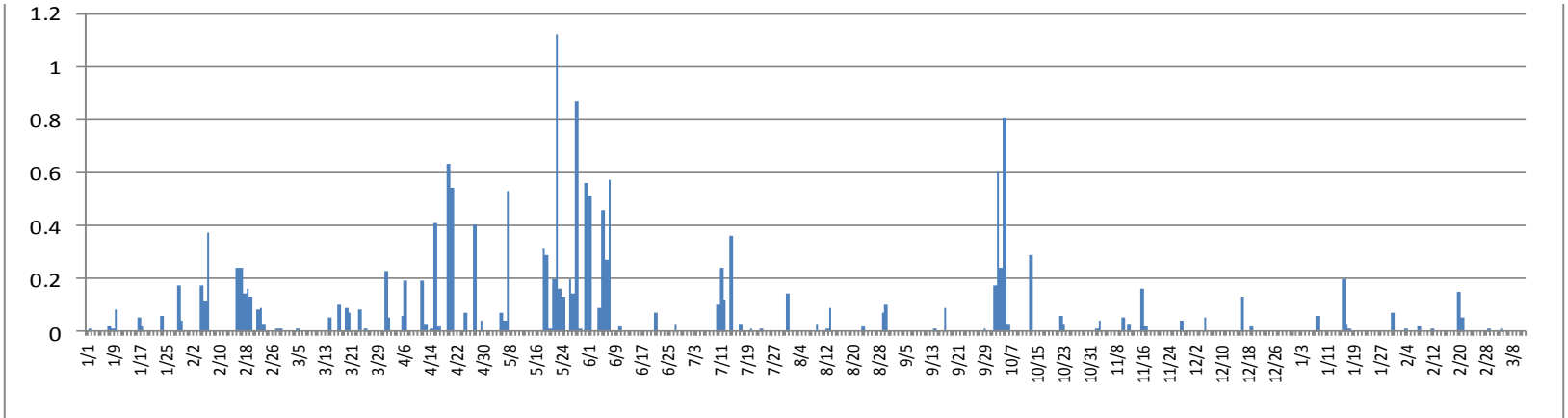
Statewide Average Precipitation

March still on par with other winter months



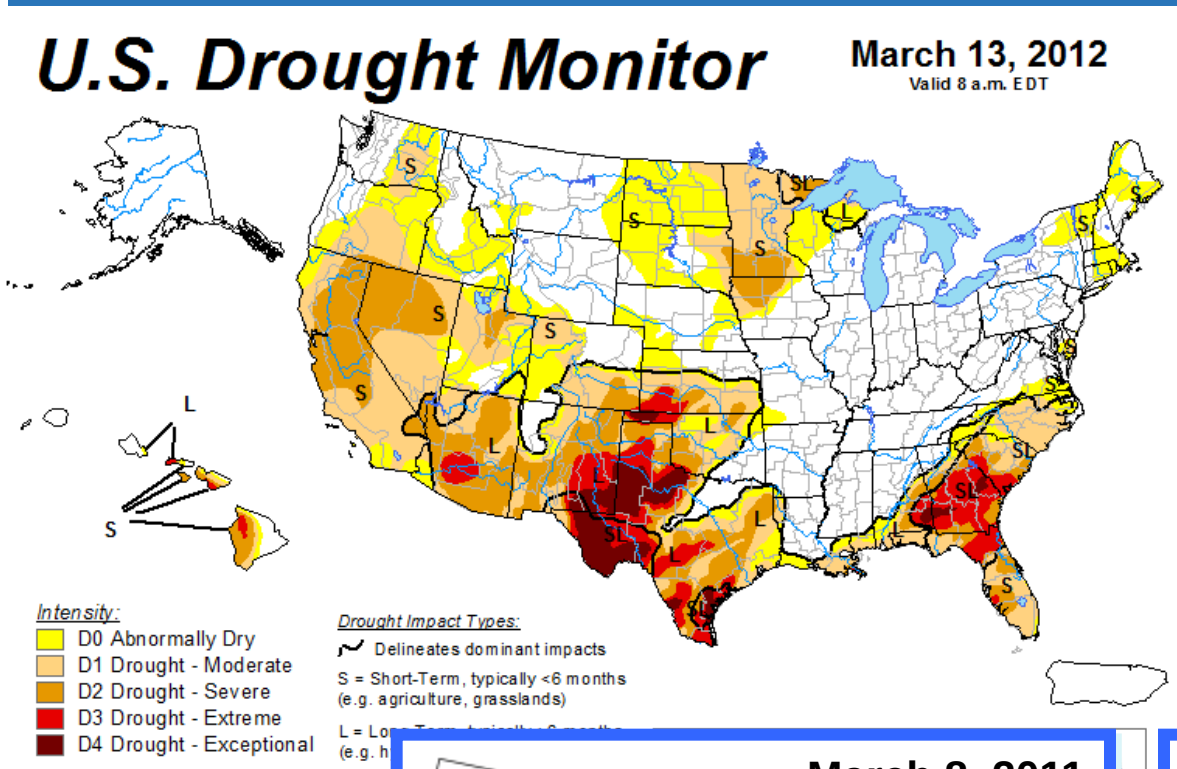
Great Falls Soil Moisture



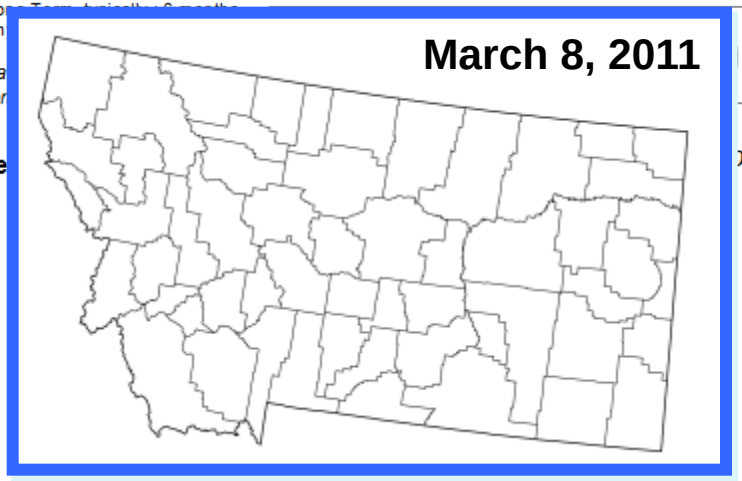


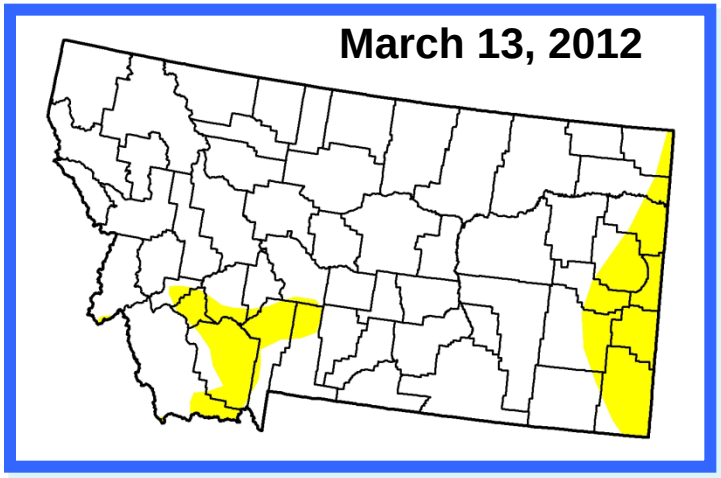
National Drought Monitor

Issued March 13, 2012

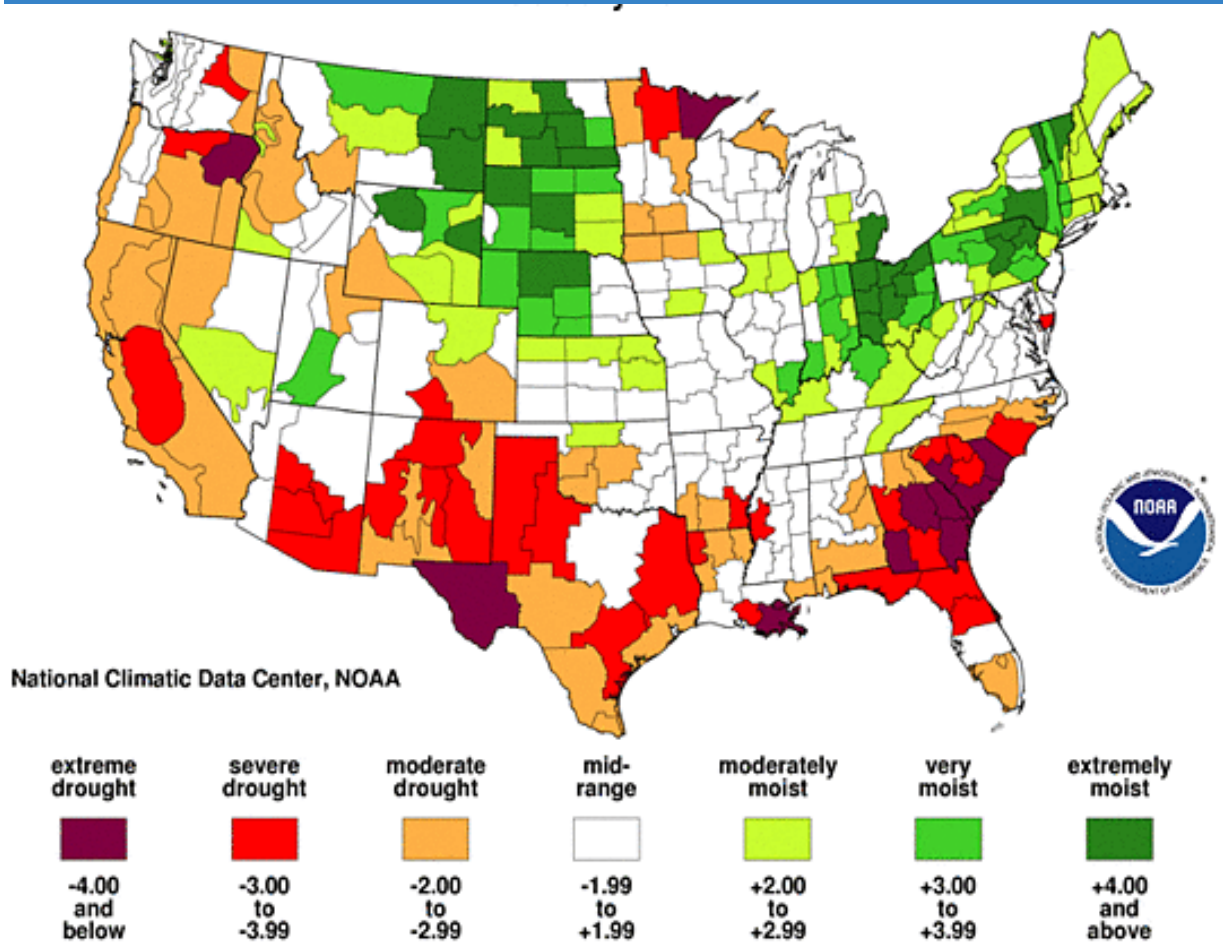


* 'Abnormally Dry' in portions of southwest and eastern Montana



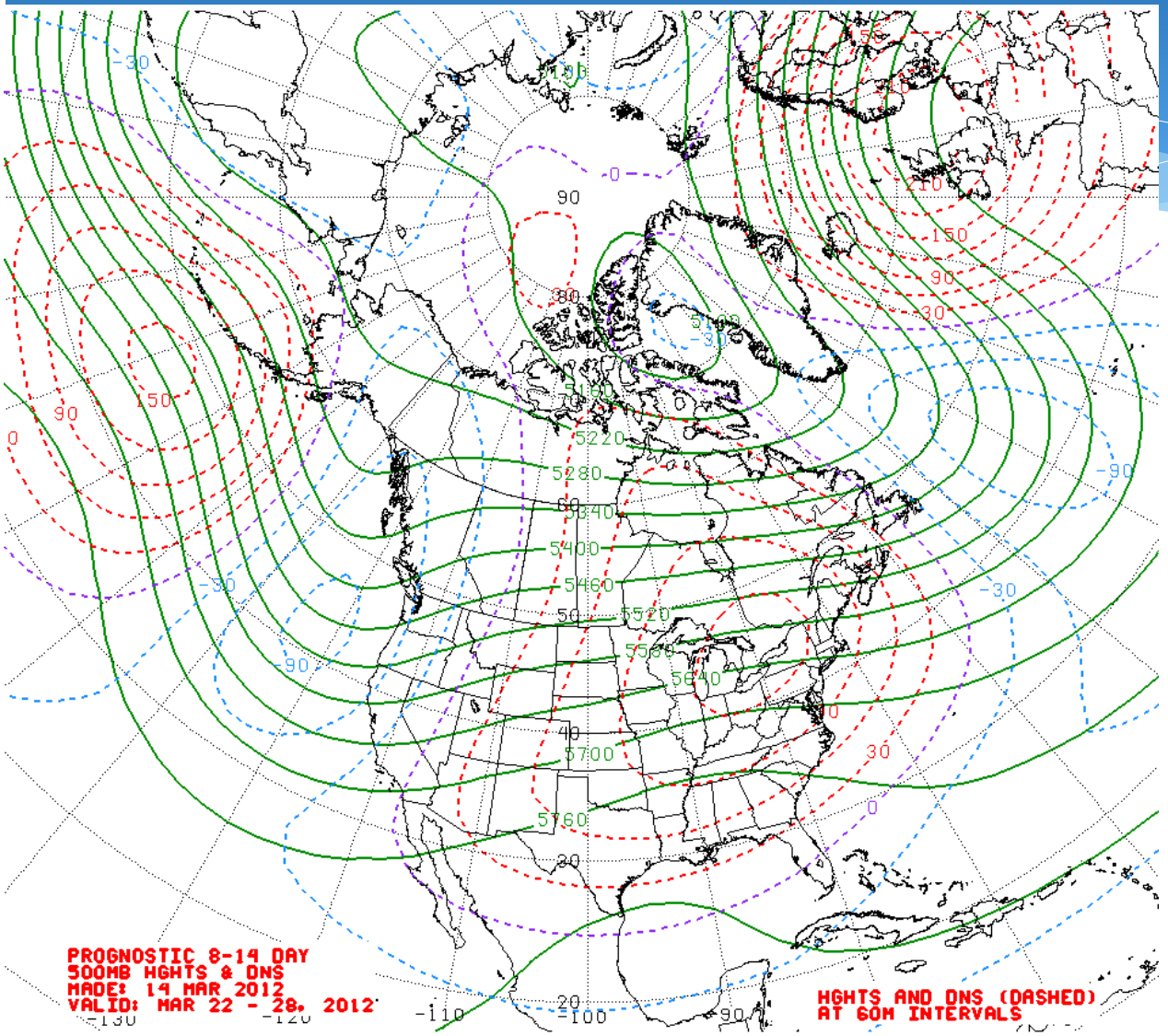


Palmer Hydrological Drought Index
February 2012



* 'Extremely Moist'
  * Northeast
  * Southeast
* 'Very Moist'
  * North central
* 'Moderately Moist'
  * Central
* 'Mid-Range'
  * West
  * South central
* 'Moderate Drought'
  * Southwest

8 to 14 Day Outlook
500mb Heights and Anomalies

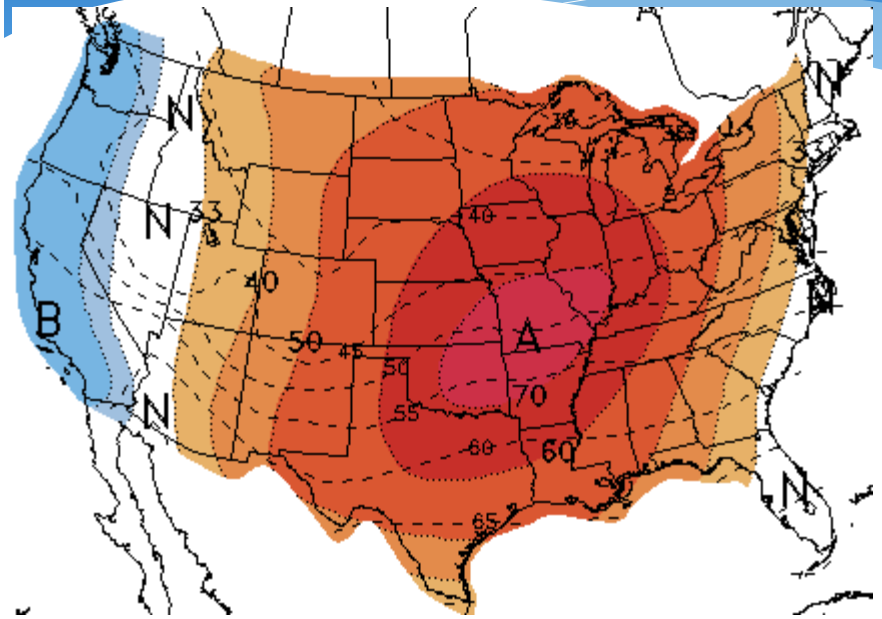


* Southwesterly flow aloft into Montana

8 to 14 Day Outlook

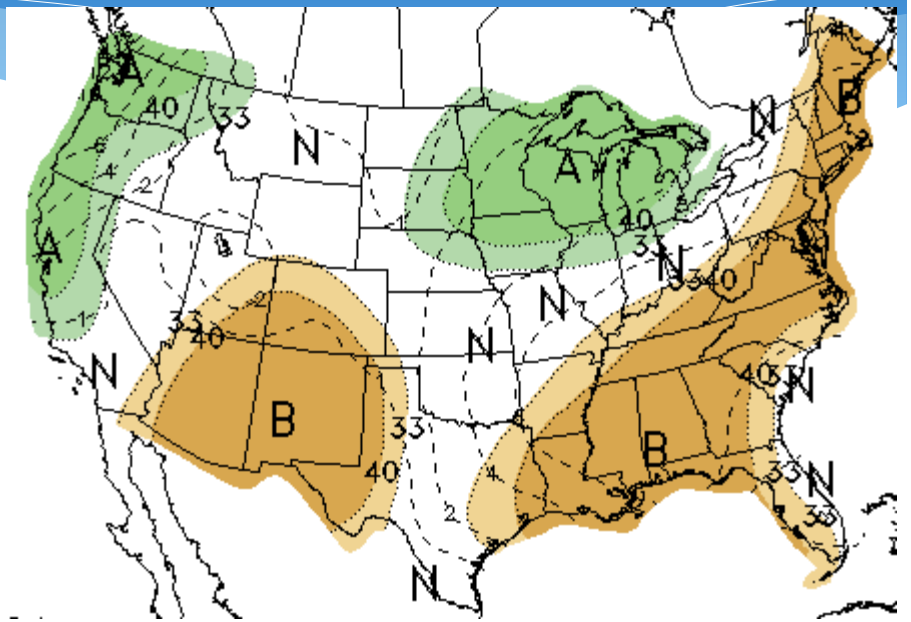
March 22 – 28, 2012

Temperature



* 33% to 40% chance temperatures will be above normal over western half of Montana
* 40% to 50% chance temperatures will be above normal over eastern half

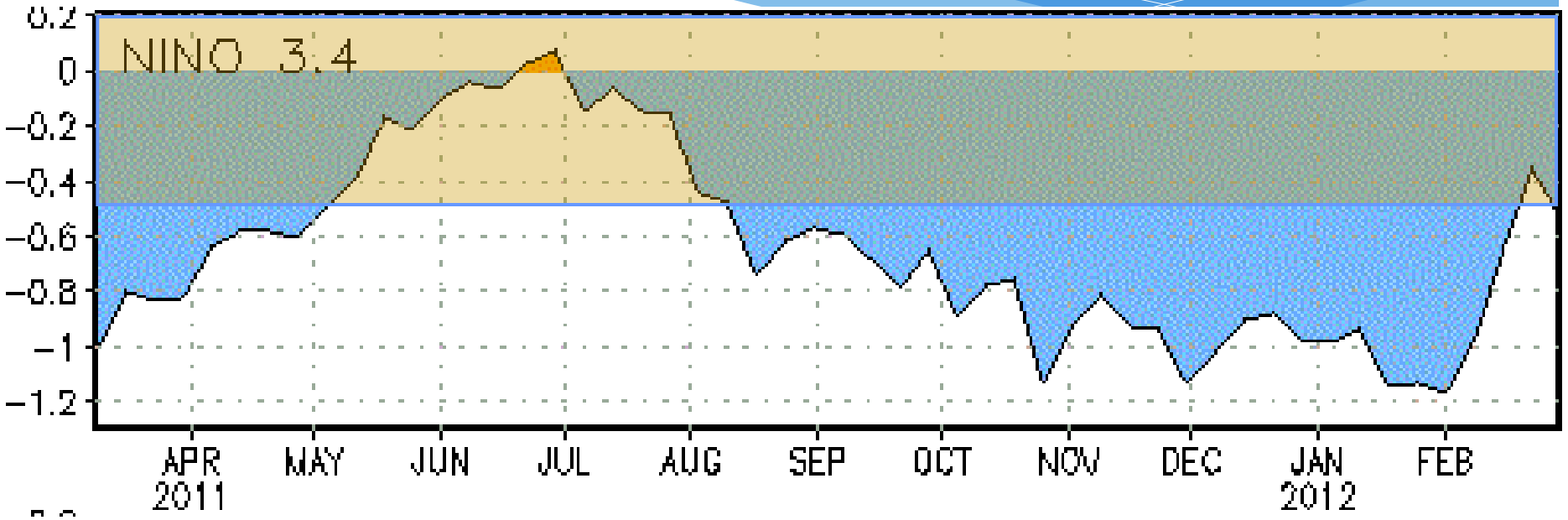
Precipitation



* 33% to 40% chance precipitation will be above normal over northwest corner
* Equal chances precipitation will be above, below or near normal remainder of Montana

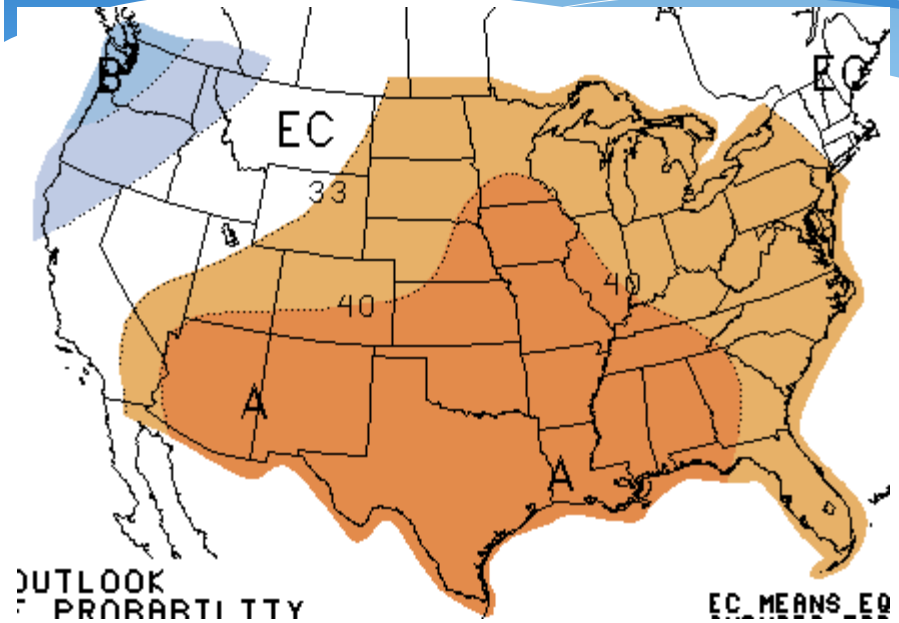
El Niño / La Niña

- La Niña is expected to transition to ENSO-neutral conditions by the end of April 2012.



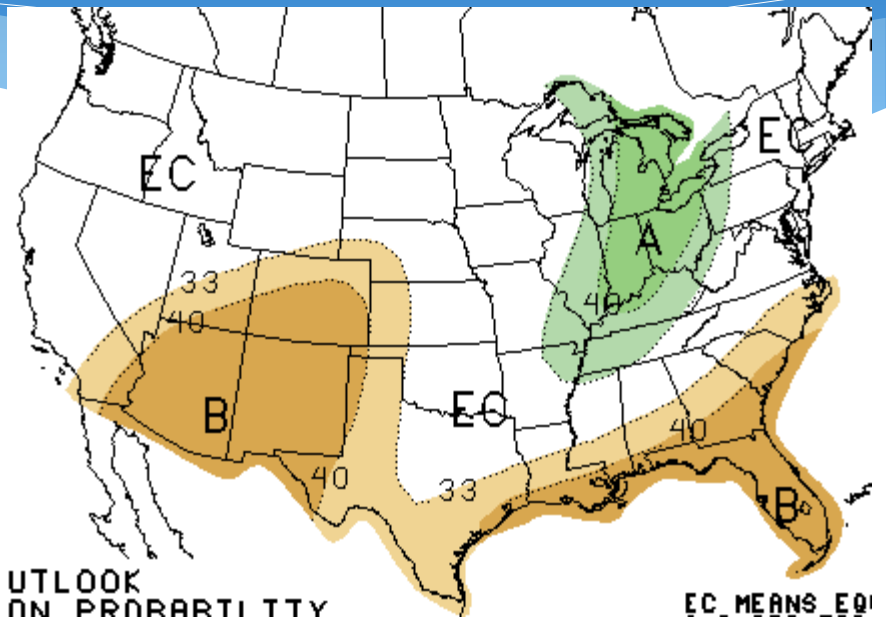
April Outlook

Temperature



* Equal chances temperatures will be above, below or near normal across Montana

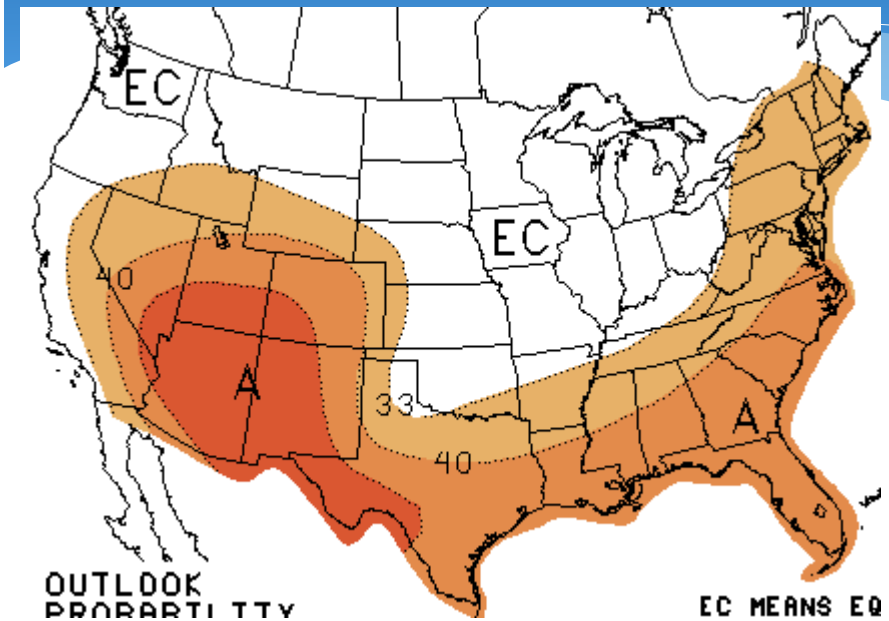
Precipitation



* Equal chances precipitation will be above, below or near normal across Montana

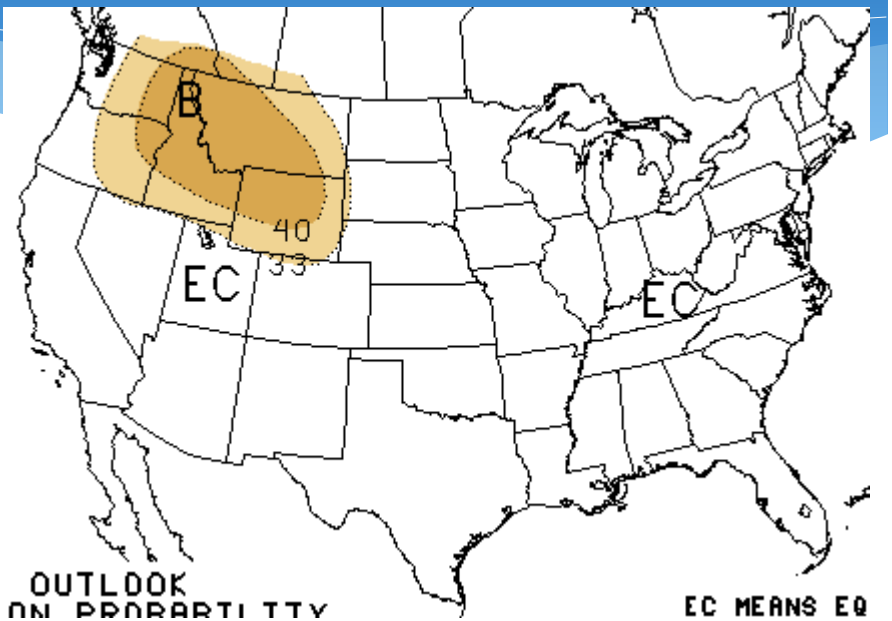
May – July Outlook

Temperature



* Equal chances temperatures will be above, below or near normal across Montana

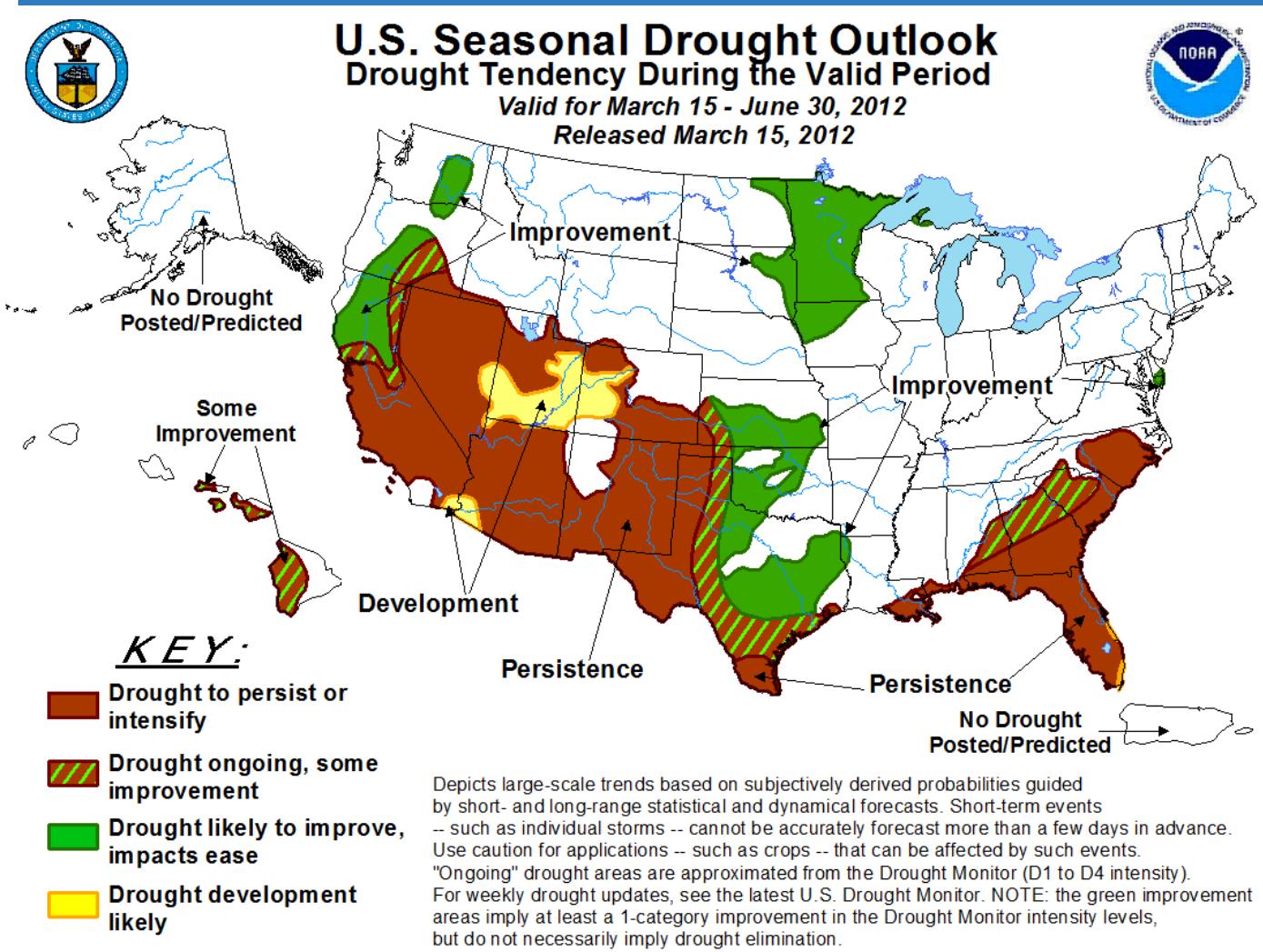
Precipitation



* 33% to 50% chance precipitation will be below normal across Montana

Drought Outlook through June

Issued March 15, 2012



* No drought development forecast for Montana through June

In Summary...

- Montana has experienced above normal temperatures and below normal precipitation across much of the state through the 2011-2012 winter
- Chances for flooding this year are low
- Forecast calling for equal chances for above, below or near normal temperatures and precipitation through April
- Forecast calling for equal chances for above, below or near normal temperatures with better chances for below normal precipitation May through July

weather.gov

weather.gov/billings

weather.gov/glasgow

weather.gov/missoula

weather.gov/greatfalls

KRTV Web Cam
March 13, 2012 4:30 p.m. – Wind W 46G60